

THAT WHICH IS CLAIMED IS:

1. A wireless communications system comprising:

a plurality of wireless communications devices each having a device type associated therewith from among a plurality of different device types, and each device type having a known device latency associated therewith; and

a wireless device locator comprising

at least one antenna and a transceiver connected thereto, and

a controller for cooperating with said transceiver for transmitting a plurality of location finding signals to a target wireless communications device from among said plurality of wireless communications devices;

said target wireless communications device transmitting a respective reply signal for each of said location finding signals;

said controller of said wireless device locator also for

cooperating with said transceiver for receiving the reply signals,

determining a propagation delay associated with the transmission of each location finding signal and the respective reply signal therefor based upon the known device latency of said target wireless communications device, and

estimating a range to said target wireless communications device based upon a plurality of determined propagation delays.

2. The wireless communications system of Claim 1 wherein said controller estimates the range based upon an average of the propagation delays.

3. The wireless communications system of Claim 1 wherein each wireless communications device has a unique identifier (UID) associated therewith; wherein said controller inserts the UID for said target wireless communications device in each of the location finding signals; and wherein said target wireless communications device generates respective reply signals based upon the UID in the locations signals.

4. The wireless communications system of Claim 3 wherein said target wireless communications device generates unsolicited signals including the UID thereof; wherein said controller cooperates with said transceiver to receive at least one unsolicited signal from said target device; and wherein said controller determines the UID for said target wireless communications device from the at least one unsolicited signal.

5. The wireless communications system of Claim 4 wherein said controller determines the device type of said target wireless communications device based upon the UID thereof.

6. The wireless communications system of
Claim 5 wherein the UIDs comprise media access control
(MAC) addresses of respective wireless communications
devices, and wherein said controller determines the
device type of said target wireless communications device
based upon the MAC address thereof.

7. The wireless communications system of
Claim 1 wherein said at least one antenna comprises a
plurality of antennas; and wherein said controller
cooperates with said plurality of antennas to determine a
bearing to said target wireless communications device
based upon at least one of the received reply signals.

8. The wireless communications system of
Claim 7 wherein the bearing is a three-dimensional
bearing.

9. The wireless communications system of
Claim 1 wherein said at least one antenna comprises at
least one directional antenna.

10. The wireless communications system of
Claim 1 wherein said wireless device locator further
comprises a portable housing carrying said at least one
antenna, said transceiver, and said controller.

11. The wireless communications system of
Claim 1 wherein said wireless communications devices
comprise wireless local area network (WLAN) devices.

12. The wireless communications system of
Claim 1 wherein said wireless communications devices
comprise mobile ad-hoc network (MANET) devices.

13. The wireless communications system of
Claim 1 wherein said wireless communications devices
comprise cellular communications devices.

14. A wireless communications system
comprising:

a plurality of wireless local area network
(WLAN) devices each having a device type associated
therewith from among a plurality of different device
types, and each device type having a known device latency
associated therewith; and

a wireless device locator comprising
at least one antenna and a transceiver
connected thereto, and

a controller for cooperating with said
transceiver for transmitting a plurality of
location finding signals to a target WLAN
device from among said plurality of WLAN
devices;

said target WLAN device transmitting a
respective reply signal for each of said location finding
signals;

said controller of said wireless device locator
also for

cooperating with said transceiver for
receiving the reply signals,

determining a propagation delay associated with the transmission of each location finding signal and the respective reply signal therefor based upon the known device latency of said target WLAN device, and

estimating a range to said target WLAN device based upon an average of a plurality of determined propagation delays.

15. The wireless communications system of Claim 14 wherein each WLAN device has a unique identifier (UID) associated therewith; wherein said controller inserts the UID for said target WLAN device in each of the location finding signals; and wherein said target WLAN device generates respective reply signals based upon the UID in the locations signals.

16. The wireless communications system of Claim 15 wherein said target WLAN device generates unsolicited signals including the UID thereof; wherein said controller cooperates with said transceiver to receive at least one unsolicited signal from said target WLAN device; and wherein said controller determines the UID for said target WLAN device from the at least one unsolicited signal.

17. The wireless communications system of Claim 16 wherein said controller determines the device type of said target WLAN device based upon the UID thereof.

18. The wireless communications system of
Claim 17 wherein the UIDs comprise media access control
(MAC) addresses of respective WLAN devices, and wherein
said controller determines the device type of said target
WLAN device based upon the MAC address thereof.

19. The wireless communications system of
Claim 14 wherein said at least one antenna comprises a
plurality of antennas; and wherein said controller
cooperates with said plurality of antennas to determine a
bearing to said target WLAN device based upon at least
one of the received reply signals.

20. A wireless device locator for locating a
target wireless communications device comprising:

at least one antenna and a transceiver
connected thereto; and

a controller for

cooperating with said transceiver for
transmitting a plurality of location finding
signals to the target wireless communications
device and receiving a respective reply signal
therefrom for each of said location finding
signals,

determining a propagation delay associated
with the transmission of each location finding
signal and the respective reply signal therefor
based upon a known device latency of the target
wireless communications device, and

estimating a range to the target wireless communications device based upon a plurality of determined propagation delays.

21. The wireless device locator of Claim 20 wherein said controller estimates the range based upon an average of the propagation delays.

22. The wireless device locator of Claim 20 wherein the target wireless communications device has a unique identifier (UID) associated therewith; wherein said controller inserts the UID for the target wireless communications device in each of the location finding signals; and wherein the target wireless communications device generates respective reply signals based upon the UID in the locations signals.

23. The wireless device locator of Claim 22 wherein the target wireless communications device generates unsolicited signals including the UID thereof; wherein said controller cooperates with said transceiver to receive at least one unsolicited signal from the target device; and wherein said controller determines the UID for the target wireless communications device from the at least one unsolicited signal.

24. The wireless device locator of Claim 20 wherein said at least one antenna comprises a plurality of antennas; and wherein said controller cooperates with said plurality of antennas to determine a bearing to the

target wireless communications device based upon at least one of the received reply signals.

25. The wireless device locator of Claim 20 wherein said at least one antenna comprises at least one directional antenna.

26. The wireless device locator of Claim 20 wherein said wireless device locator further comprises a portable housing carrying said at least one antenna, said transceiver, and said controller.

27. The wireless device locator of Claim 20 wherein the target wireless communications device comprises a wireless local area network (WLAN) device.

28. The wireless device locator of Claim 20 wherein the target wireless communications device comprises a mobile ad-hoc network (MANET) device.

29. The wireless device locator of Claim 20 wherein the target wireless communications device comprises a cellular communications device.

30. A method for locating a target wireless communications device from among a plurality of wireless communications devices, each wireless communications device having a device type associated therewith from among a plurality of different device types, and each device type having a known device latency associated therewith, the method comprising:

transmitting a plurality of location finding signals to the target wireless communications device, and receiving a respective reply signal for each of the location finding signals therefrom;

determining a propagation delay associated with the transmission of each location finding signal and the respective reply signal therefor based upon the known device latency of the target wireless communications device; and

estimating a range to the target wireless communications device based upon a plurality of determined propagation delays.

31. The method of Claim 30 wherein the controller estimates the range based upon an average of the propagation delays.

32. The method of Claim 30 wherein each wireless communications device has a unique identifier (UID) associated therewith; wherein the target wireless communications device generates unsolicited signals including the UID thereof; and further comprising:

receiving at least one unsolicited signal from the target device;

determining the UID for the target wireless communications device from the at least one unsolicited signal; and

inserting the UID in the location finding signals.

33. The method of Claim 32 further comprising determining the device type of the target wireless communications device based upon the UID thereof.

34. The method of Claim 30 further comprising determining a bearing to the target wireless communications device based upon at least one of the received reply signals.

35. The method of Claim 30 wherein the target wireless communications device comprises a wireless local area network (WLAN) device.

36. The method of Claim 30 wherein the target wireless communications device comprises a mobile ad-hoc network (MANET) device.

37. The method of Claim 30 wherein the target wireless communications device comprises a cellular communications device.